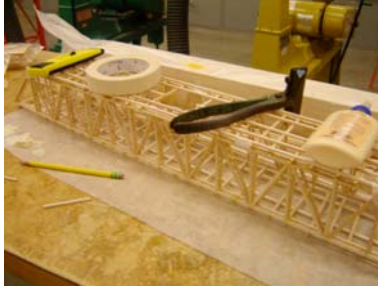


If You Build the Bridge They Will Break It!



Since October, 2004, a small group of highly motivated students from Brownsburg West Middle School's Gateway to Technology class have been meeting several times a week to design and build bridges. Given a set of instructions from IUPUI, some balsa wood, glue and a lot of determination, they worked very hard to design and build a variety of bridge structures for the 2005 Bridge Design Competition and Construction Expo at IUPUI.

Our students began with some investigative work online, looking at various bridge structures and designs. Some ventured out into the community to find examples of actual bridges to use as models. After some design consideration, the building began. With balsa wood flying, bending and in some cases breaking, they used their knowledge and skills to carefully craft several different and unique designs. It is amazing how the bridge design reflects the student – one group was in and done in a relatively short amount of time with a very neat, complete bridge – another group redesigned right up until the days before the final competition! No matter what the outcome, all were successful – and we loaded up the truck to go to the competition!

Registration, compliance (with a trip to the “repair shop” for a few minor repairs) and we were ready to start. All eyes focused on the groups as they carefully placed their bridge – attached the weight (a bucket) – began filling it with sand – and then, the agonizing wait until – SNAP!!!! . With each contestant coached as to why their structure “failed” the way it did, they came away with a smile – and a vow to compete again next year. While our student bridges did not “win” an award, the students won a vast amount of knowledge that they did not have before they entered this competition. Who could ever think that building a bridge to be “destroyed” could work such magic on young minds!